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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,096	11/04/2003	David A. Beck	VOI0156.DIV	4401

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/701,096

Applicant(s)

BECK, DAVID A.

Examiner

Alicia Chevalier

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

1. Claims 1-9 are pending in the application, claims 10-19 have been cancelled.
2. Amendments to the claims, filed on July 27, 2005, have been entered in the above-identified application.

REJECTIONS

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 103

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romanski (U.S. Patent No. 4,224,372) in view of Hartigan, Jr. (U.S. Patent No. 4,482,601) and Kirby (U.S. Patent No. 4,351,874).

Regarding Applicant's claim 1, Romanski discloses a unitary membrane for use in a pressing apparatus (*press section of a paper making machine, col. 1, lines 7-14*) comprising a continuous belt (*endless dryer belt, col. 1, lines 8-9 and lines 16-18*) which is deemed to have a pair of longitudinal edge portions on the belt and a semipermeable portion with a plurality of intercommunicating pores (*interstices or voids, col. 2, lines 63-64*). The unitary membrane comprises a formed fabric and the semipermeable portion is deemed to be both gas and liquid permeable, since it has the same total permeability of greater than zero and less than about five CFM per square foot (*col. 1, lines 59-64*).

Romanski fails to disclose that the unitary membrane has a thickness less than about 0.1 inches.

Both Kirby and Hartigan disclose felts used as dryer belts in paper making machines. Both also disclose that the thickness of the felt is less than about 0.1 inches (Hartigan, *col. 7, lines 66-67 and Kirby, col. 4, table 1*).

Romanski, Kirby and Hartigan are analogous because they all disclose felts used as dryer belts in paper making machines.

It would have been obvious to one of ordinary skill in the art at the time of the invention to change the thickness of the membrane, since a modification would have involved a mere change in size of the membrane. A change in size is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (I) and (IV). One of ordinary skill in the art would have been motivated to use a thickness of less than about 0.1 inches because it is known to make felt dryer belts of that thickness.

Regarding Applicant's claim 2, Romanski discloses that one can obtain fabrics of the invention having varied permeabilities by selection of the density of the yarns, which are employed in the construction of the fabric. Thus, by providing a higher density of the yarns which are subsequently encapsulated in foam, one can have lower permeability fabrics (*col. 4, lines 3-9*).

Therefore, the exact total permeability of the membrane is deemed to be a result effective variable with regard to the density of the yarn. It would require routine experimentation to determine the optimum value of a result effective variable, such as total permeability, in the

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absence of a showing of criticality in the claimed total permeability. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Regarding Applicant's claim 3, Romanski discloses that the total permeability is determined by at least one of a size, a shape, a frequency and a pattern of a plurality of pores in the semipermeable portion (*col. 2, line 63 through col. 3, line 18*).

Regarding Applicant's claim 4, Romanski fails to disclose that the cross section of the unitary membrane has a trapezoidal shape. However, it would have been an obvious matter of design choice to change the shape of cross section of the membrane, since a modification would have involved a mere change in size of the membrane. A change in size or shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (I) and (IV).

Regarding Applicant's claim 5, the pair of longitudinal edge portions of Romanski's dryer belt are deemed to be impermeable since the yarn is not interwoven to create interstices at the edges.

Regarding Applicant's claim 6, Romanski discloses that the formed fabric forms a flow resistance layer near a surface of the unitary membrane (*foamable composition, col. 3, line 29*).

Regarding Applicant's claim 7, Romanski discloses that the unitary membrane further comprises a fluid distribution layer (*fabric, col. 2, line 46*) adjacent the flow resistant layer.

Regarding Applicant's claim 8, the unitary membrane is deemed to have an abrasion resistant surface, since Romanski discloses that the membrane comprises a formed fabric (*col. 2, lines 44-62*).

Regarding Applicant's claim 9, the exact void percentage of the membrane is deemed to be a result effective variable with regard to the permeability. It would require routine experimentation to determine the optimum value of a result effective variable, such as void percentage, in the absence of a showing of criticality in the claimed percentage. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

ANSWERS TO APPLICANT'S ARGUMENTS

5. Applicant's arguments in the response filed July 27, 2005 regarding the previous rejections of record have been considered but are moot since the rejections have been withdrawn.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Alicia Chevalier". The signature is written in a cursive style with a large, stylized "A" and a long, sweeping underline.

Alicia Chevalier
Primary Examiner
10/12/05